

In compliance with the 37 C.F.R. §§1.821-1.825, Applicants have amended the claims to recite the descriptive SEQ ID NOs that encompass sequences containing the appropriate number of Xaa recited in the variables, A₁ and A₂.

REMARKS

Claims 1-15 are pending in the application. The specification and claims are amended to correct improper Markush format, to remove multiple dependencies, and to incorporate the revised Sequence Listing into the specification.

Applicants hereby elect Group III, claims 1-8, 11, and 13 in part, drawn to the elected technical feature peptide and to the method for treating trauma. For the elected Group of claims, Applicants further elect SEQ ID NO:1. Applicants traverse the restriction with respect to Group V.

The Examiner bases lack of unity on the supposition that the inventions "lack the same or corresponding special features" for various reasons stated in the February 13th Office Action (Paper No.11). Rule 475 states clearly that unity of invention in national stage applications is determined in the same manner as international applications. The standard for international applications is stated clearly in PCT Rule 13.2 and in Annex B, Part I, of the PCT. See MPEP, page A1-60 (revised August 2001).

Example 17 of the Annex states:

Claim 1: Protein X

Claim 2: DNA sequence encoding protein X.

Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is accepted.

The special technical feature exhibited between the DNA and protein exists because the protein "is determined by the DNA sequence."

Claim 1 recites a peptide ("Protein X"). Claim 14 recites a cellular expression vector comprising a nucleic acid sequence expressing a peptide of claim 1 ("DNA sequence encoding protein X"). This situation is precisely what is described in Example 17. Accordingly, the restriction of Group V is improper.

Applicants reserve the right to file one or more divisional applications covering the subject matter of the non-elected claims.

CONCLUSION

In view of the foregoing remarks, Applicants urge that the present claims are in condition for examination on the merits. Receipt of the initial Office Action on the merits is awaited. Should there be any questions regarding this application, the Examiner is invited to contact the undersigned at the telephone number shown below.

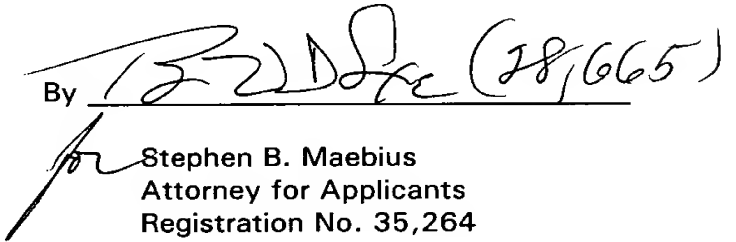
If there are any fees due in connection with the filing of this Response, please charge the fees to Deposit Account No. 19-0741. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to the above-mentioned Deposit Account.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Twice Amended) A peptide having at least the following amino acid sequence:

–W-S-A₁-C-S-A₂-C-G– (SEQ ID NO:1)

in which A₁ and A₂ are amino acid sequences comprising 1 to 5 amino acids, with the exception of the peptides [or polypeptides having one of the sequences] selected from the group consisting of:

–W-S-P-C-S-V-T-C-G– (SEQ ID NO:2),

–W-S-S-C-S-V-T-C-G– (SEQ ID NO:3),

–W-S-Q-C-S-V-T-C-G– (SEQ ID NO:4),

–W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R– (SEQ ID NO:15),

–W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R– (SEQ ID NO:16),

–W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R– (SEQ ID NO:17),

–W-S-Q-C-S-V-Y-C-G– (SEQ ID NO:18),

–T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N– (SEQ ID NO:19), and

–T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N– (SEQ ID NO:20).

2. (Amended) The peptide [or polypeptide] according to claim 1, [characterized in that] comprising said A₁ is Pro or –X₁-W-X₂-X₃– (SEQ ID NO:5), X₁, X₂, and X₃ being chosen, independently of each other, from G, S and C.

3. (Amended) The peptide [or polypeptide] according to claim 2, [characterized in that] comprising said A₁ is –X₁-W-S-X₃– (SEQ ID NO:6).

4. (Amended) The peptide [Peptide or polypeptide] according to [one of claims 1 to 3] claim 1, [characterized in that] comprising said A₂ is [chosen from] selected from the group consisting of –R-S–, –V-S–, and –V-T–.

5. (Amended) The peptide [or polypeptide] according to [one of claims 1 to 4] claim 1, [characterized in that it] wherein said peptide comprises at least the following amino acid sequence:

–W-S-X₁-W-S-X₂-C-S-A₂-C-G– (SEQ ID NO:7).

6. (Amended) The peptide [or polypeptide] according to [one of claims] claim 1 [to 5], [characterized in that it is] wherein said peptide comprises the following amino acid sequence:

–W-S-G-W-S-S-C-S-R-S-C-G– (SEQ ID NO:8).

7. (Amended) The peptide [or polypeptide] according to [one of claims 1 to 5 of formula characterized in that] claim 1, wherein said peptide comprises the following amino acid sequence:

–W-S-A₁-C-S-A₂-C-G-Z– (SEQ ID NO:9)

in which Y and Z constitute the N– and C–terminal ends of the peptide, [or] comprise amino acid chains having less than 6 amino acids or[,] comprise chains of compounds [which] that are not amino acids.

8. (Amended) A pharmaceutical composition comprising [at least one] a peptide [or polypeptide] according to [one of claims 1 to 7] claim 1 and a pharmaceutically acceptable vehicle.

9. (Twice Amended) [Use of a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:] A method for regenerating nervous system cells comprising contacting the cells with an effective amount of a peptide according to claim 1.

[–W-S-P-C-S-V-T-C-G– (SEQ ID NO:2),

–W-S-S-C-S-V-T-C-G– (SEQ ID NO:3),

–W-S-Q-C-S-V-T-C-G– (SEQ ID NO:4),

–W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R– (SEQ ID NO:15),

–W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R– (SEQ ID NO:16),

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R₂ (SEQ ID NO:17),
 -W-S-Q-C-S-V-Y-C-G₂ (SEQ ID NO:18),
 -T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N₂ (SEQ ID NO:19), and
 -T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N₂ (SEQ ID NO:20), for the
 manufacture of a medicine intended for the regeneration of the nervous system cells].

10. (Twice Amended) [Use of a peptide selected from the peptides according to one of claims 1 to 7 and the peptides having the sequence:] A method for treating a neurodegenerative disease, said method comprising administering to a patient with said neurodegenerative disease an effective amount of a peptide according to claim 1.

[-W-S-P-C-S-V-T-C-G- (SEQ ID NO:2),
 -W-S-S-C-S-V-T-C-G- (SEQ ID NO:3),
 -W-S-Q-C-S-V-T-C-G- (SEQ ID NO:4),
 -W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R₂ (SEQ ID NO:15),
 -W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R₂ (SEQ ID NO:16),
 -W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R₂ (SEQ ID NO:17),
 -W-S-Q-C-S-V-Y-C-G₂ (SEQ ID NO:18),
 -T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N₂ (SEQ ID NO:19), and
 -T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N₂ (SEQ ID NO:20), for the
 manufacture of a medicine intended for the treatment of neurodegenerative disease].

11. (Twice Amended) [Use of a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:] A method for treating a pathological condition or trauma requiring the regeneration of nervous system cells, said method comprising administering to a patient with said pathological condition or trauma an effective amount of a peptide according to claim 1.

[-W-S-P-C-S-V-T-C-G- (SEQ ID NO: 2),

-W-S-S-C-S-V-T-C-G- (SEQ ID NO:3),

-W-S-Q-C-S-V-T-C-G- (SEQ ID NO:4),

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R- (SEQ ID NO:15),

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R- (SEQ ID NO:16),

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R- (SEQ ID NO:17),

-W-S-Q-C-S-V-Y-C-G- (SEQ ID NO:18),

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N- (SEQ ID NO:19), and

-T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N- (SEQ ID NO:20), for the manufacture of a medicine intended for the treatment of pathological conditions and traumas requiring regeneration of the nervous system cells and more particularly of their synaptic outgrowths.]

12. (Twice Amended) [Use of a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:] A method for treating a neuroblastoma, said method comprising administering to a patient with said neuroblastoma an effective amount of a peptide according to claim 1.

[-W-S-P-C-S-V-T-C-G- (SEQ ID NO: 2),

-W-S-S-C-S-V-T-C-G- (SEQ ID NO:3),

-W-S-Q-C-S-V-T-C-G- (SEQ ID NO:4),

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R- (SEQ ID NO:15),

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R- (SEQ ID NO:16),

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R- (SEQ ID NO:17),

-W-S-Q-C-S-V-Y-C-G- (SEQ ID NO:18),

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N- (SEQ ID NO:19), and

-T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N- (SEQ ID NO:20), for the manufacture of a medicine intended for the treatment of neuroblastomas].

13. (Twice Amended) An additive for [the cellular cultures of] culturing nerve cells, [characterized in that it] comprising a peptide according to claim 1.

[-W-S-P-C-S-V-T-C-G- (SEQ ID NO:2),

-W-S-S-C-S-V-T-C-G- (SEQ ID NO:3),

-W-S-Q-C-S-V-T-C-G- (SEQ ID NO:4),

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R- (SEQ ID NO:15),

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R- (SEQ ID NO:16),

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R- (SEQ ID NO:17),

-W-S-Q-C-S-V-Y-C-G- (SEQ ID NO:18),

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N- (SEQ ID NO:19), and

-T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N- (SEQ ID NO:20)]

14. (Twice Amended) A cellular expression vector, [characterized in that it comprises] comprising a nucleic acid sequence expressing a peptide [selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence] according to claim 1.

[-W-S-P-C-S-V-T-C-G- (SEQ ID NO:2),

-W-S-S-C-S-V-T-C-G- (SEQ ID NO:3),

-W-S-Q-C-S-V-T-C-G- (SEQ ID NO: 4),

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R- (SEQ ID NO:15),

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R- (SEQ ID NO:16),

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R- (SEQ ID NO:17),

-W-S-Q-C-S-V-Y-C-G- (SEQ ID NO:18),

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N- (SEQ ID NO:19), and

-T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N- (SEQ ID NO:20).]

15. (Amended) The cellular expression vector according to Claim [13]14,
[characterized in that] wherein said vector comprises [in particular the sequence] SEQ ID
NO: 10.